

REMARKS

Applicants appreciate the Examiner's thorough consideration provided the present application. Claims 1-19 are currently pending in the instant application. Claim 13 has been amended. Claims 1, 8 and 13 are independent. Reconsideration of the present application is earnestly solicited.

Claim Rejections Under 35 U.S.C. § 103

Claims 1-19 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Ishihara (U.S. Patent No. 4,567,958) in view of Izumi (U.S. Patent No. 6,155,371). It appears that claims 6 and 8 have still been rejected under 35 U.S.C. § 103(a) via Official Notice, e.g., without providing evidence from the prior art of record to support the Examiner's conclusions. This rejection is respectfully traversed.

Applicants submit that the Examiner's alleged combination fails to teach each and every element of the claimed invention. In addition, the Examiner has selectively extracted teachings from the prior art of record while ignoring the teachings of the references as a whole. This is improper.

With respect to claim 1, the unique combination of elements of the claimed invention is not taught or suggested by the prior art of record. For example, the Examiner has not identified *"a bolt securing said fixed pulley half to the end portion of the crankshaft, said bolt threadingly engaged with a female*

screw portion formed within an interior portion of the end portion of the crankshaft” anywhere within the prior art of record. (emphasis added)

With respect to claim 8, the unique combination of elements of the claimed invention is not taught or suggested by the prior art of record. For example, the Examiner has not identified “*a bolt securing said fixed pulley half to the end portion of the crankshaft, said bolt threadingly engaged with a bolt hole formed within an interior portion of the end portion of the crankshaft*” anywhere within the prior art of record. (emphasis added)

Applicants have amended claim 13 into independent format. The prior art of record fails to teach or suggest the unique combination of elements of the claimed invention. For example, the Examiner has not identified “*a bolt securing said fixed pulley half to the end portion of the crankshaft, said bolt threadingly engaged with a bolt hole formed within an interior portion of the end portion of the crankshaft*” and/or “*the bolt hole is formed in an end face of a left shaft portion of the crankshaft, the bolt hole having a depth of about half of a length of the left shaft portion*” anywhere in the prior art of record. (emphasis added) Accordingly, these rejections should be withdrawn.

Further, Applicants appreciate the Examiner’s references to a variety of cases allegedly in support of the Examiner’s rejection. However, Applicants submit that the Examiner has not in any way related the facts of the present application to the facts of the cases relied upon in the caselaw cited by the Examiner.

For example, the Examiner has listed *In re Nomiya*, 509 F.2d 566, 184 U.S.P.Q. 607 (C.C.P.A. 1975) as a basis for the rejection. The following additional information is provided for the Examiner's review. The CCPA in this case concluded that:

"It should not be necessary for this court to point out that a patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. This is part of the "subject matter as a whole" which should always be considered in determining the obviousness of an invention under 35 U.S.C. § 103." (see *In Re Nomiya*, 184 USPQ 607, 612 (CCPA 1975).

In fact, contrary to the assertion that the Examiner does not need to show expressly or in so many words, the changes or possible improvements of the present claimed invention, *In re Zurko*, 111 F.3d 887, 42 USPQ 2d. 1476, 1479 (Fed. Cir. 1997), expanded upon this position relied upon by the Examiner. "A patentable invention may lie in the discovery of the source of a problem even though the remedy may be obvious once the source of the problem is identified. . .to say that the missing step comes from the nature of the problem to be solved begs the question because the Board failed to show that this problem had been previously identified anywhere in the prior art."

In the present application, the Examiner admits that Ishihara does NOT teach or suggest "*a bolt securing said fixed pulley half to the end portion of the crankshaft, said bolt threadingly engaged with a bolt hole formed within an*

interior portion of the end portion of the crankshaft.” In order to cure this deficiency, the Examiner relies upon Izumi. However, Izumi is directed toward the same type of arrangement that Applicants describe in the Background of the Invention. In short, none of the prior art of references teach or even remotely suggest a fixed pulley half being fixed to a crankshaft by a bolt.

The Examiner alleges that “Izumi teaches in figure 4, a fixed pulley half of a variable radius pulley fixed to a shaft with a bolt.” Actually, the Examiner is purposefully ignoring the fact that in this very same figure, FIG. 4, Izumi does NOT show a fixed pulley half being fixed to a crankshaft by a bolt. In fact, Izumi shows the exact opposite configuration of the claimed invention. Despite showing the opposite arrangement of the claimed invention, the Examiner states that it would have been obvious to add this feature to the device of Izumi/Ishihara anyway.

The Examiner is relying upon a reference to allegedly teach that which it explicitly avoids in the very same figure. Izumi was obviously aware of the ability to secure a pulley half to a rotating shaft via a bolt. However, it is clear from FIG. 4 that Izumi did not see any reason to secure the pulley halves on the driving end of the transmission, e.g., the crankshaft, with a bolt in the manner as the claimed invention. If the reference itself chooses to ignore the possibility of securing the pulley half to the end of the crankshaft in this manner, it would appear that Izumi did not believe that there was any art-recognized problem with this type of arrangement.

Since Ishihara, Izumi and the Examiner have not shown that there was any art-recognized problem with the prior art devices, why would one of ordinary skill in the art attempt to modify the Izumi structure as alleged by the Examiner. The Examiner has simply shown that the prior art of record could have been modified to read on the claimed invention. However, the prior art of record does not suggest a single reason, e.g, there is no evidence in the record of the present application, that this modification would have been desirable and/or suggested by the prior art. Accordingly, this rejection should be withdrawn.

In BOTH Izumi and Ishihara, the fixed pulley half on the driving side (connected to the crankshaft) is affixed thereto by a nut (element 224 in Figures 4 and 5). It is clearly apparent that Izumi does NOT teach that the fixed pulley half on the driving side of a transmission should be affixed by a bolt as in the claimed invention. In fact, Izumi is directed toward an arrangement that is merely evidence of the stated problem that Applicants have attempted to solve.

With respect to claim 6 and 18, the Examiner alleges that "it would have been obvious to one of ordinary skill in the art at the time the invention was made to include a chamfer on the outer edge of the bolt hole as it is old and well known in the art to provide a chamfer on a bolt hole to provide a thread alignment." This use of Official Notice is traversed. The Examiner has not utilized any references to support or advance these opinions. The Examiner

has failed to show the structural elements and/or provided any motivation based on the prior art of record that would support this conclusion. Accordingly, Applicants request that the Examiner properly respond and augment the record of the present application as outlined in section 2144.03 of the MPEP.

In accordance with the above discussion of the patents relied upon by the Examiner, Applicants respectfully submit that these documents, either in combination together or standing alone, fail to teach or suggest the invention as is set forth by the claims of the instant application.

As to the dependent claims, Applicants respectfully submit that these claims are allowable due to their dependence upon an allowable independent claim, as well as for additional limitations provided by these claims.

Conclusion

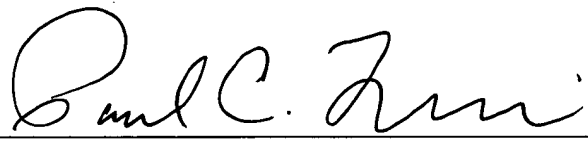
Since the remaining patents cited by the Examiner have not been utilized to reject the claims, but rather to merely show the state-of-the-art, no further comments are necessary with respect thereto.

In the event there are any matters remaining in this application, the Examiner is invited to contact Mr. Matthew Shanley, Registration No. 47,074 at (703) 205-8000 in the Washington, D.C. area.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

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MARKED-UP VERSION OF AMENDMENTS

IN THE CLAIMS:

Please amend the claims as follows:

13. (Amended) A V-belt transmission comprising: [The V-belt transmission according to claim 8,]

a crankshaft having a drive end;

a rear wheel drive section;

a driving pulley operatively connected to said crankshaft;

and a driven pulley operatively connected to the rear wheel drive section of said transmission;

a V-belt arranged between said driving pulley and said driven pulley, wherein said driving pulley includes a fixed pulley half fixed to an end portion of the crankshaft and an axially movable pulley half supported on the crankshaft in a position laterally opposite to the fixed pulley half; and a bolt securing said fixed pulley half to the end portion of the crankshaft, said bolt threadingly engaged with a bolt hole formed within an interior portion of the end portion of the crankshaft, wherein the bolt hole is formed in an end face of a left shaft portion of the crankshaft, the bolt hole having a depth of about half of a length of the left shaft portion.